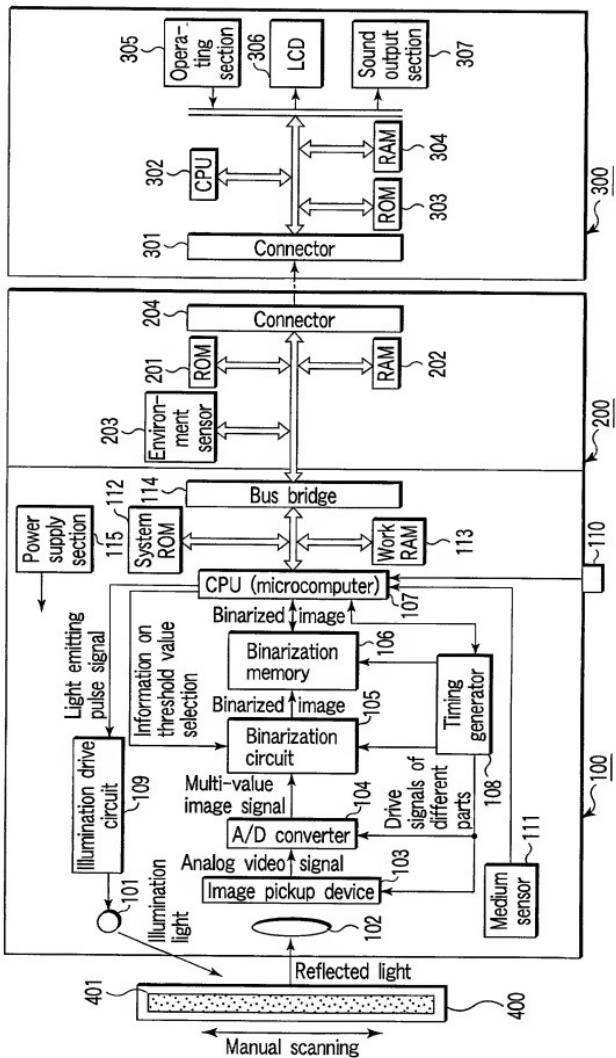


FIG. 1



■~401
One shot

FIG. 2

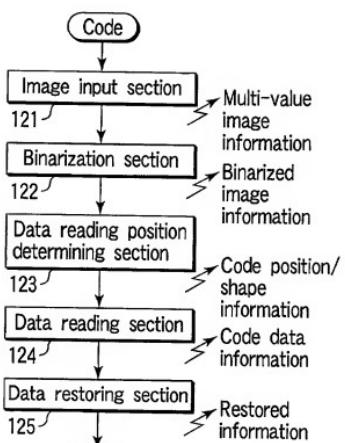


FIG. 3

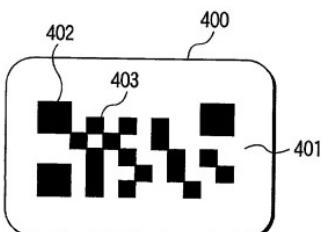
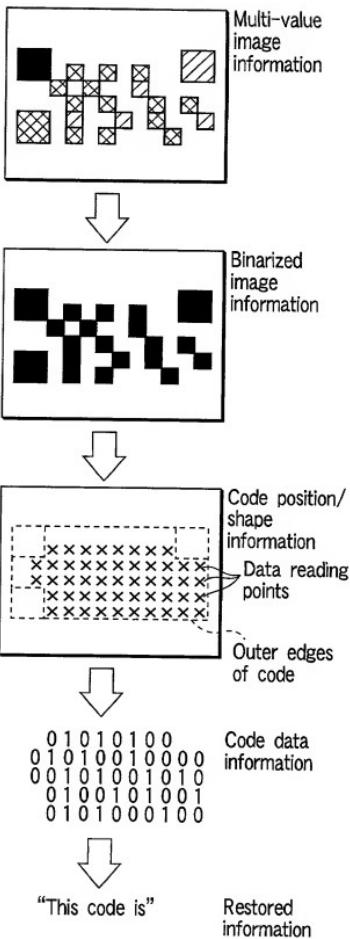


FIG. 4

FIG. 5

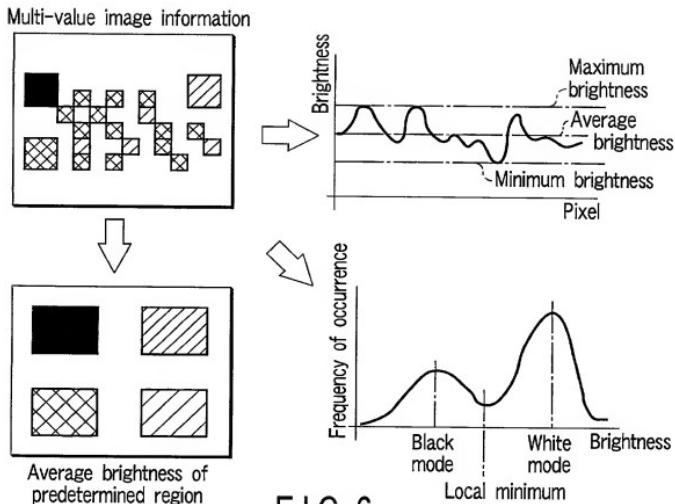


FIG. 6

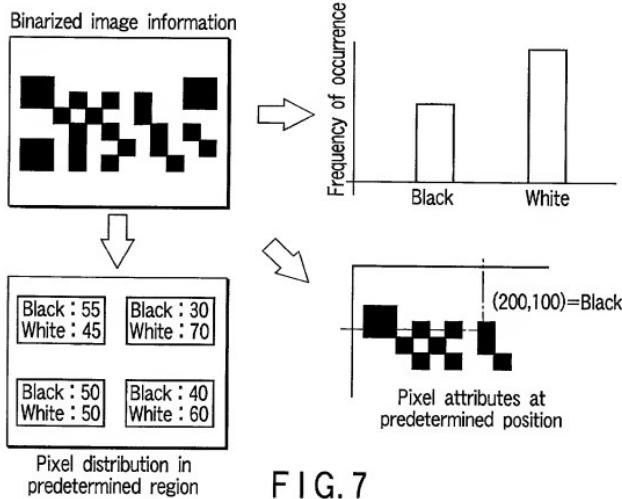
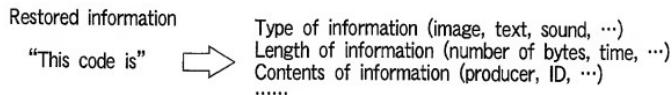
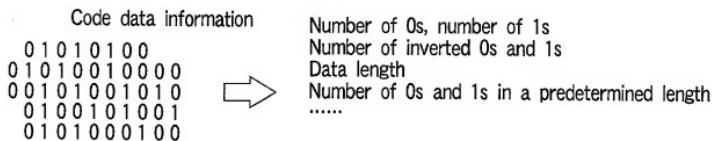
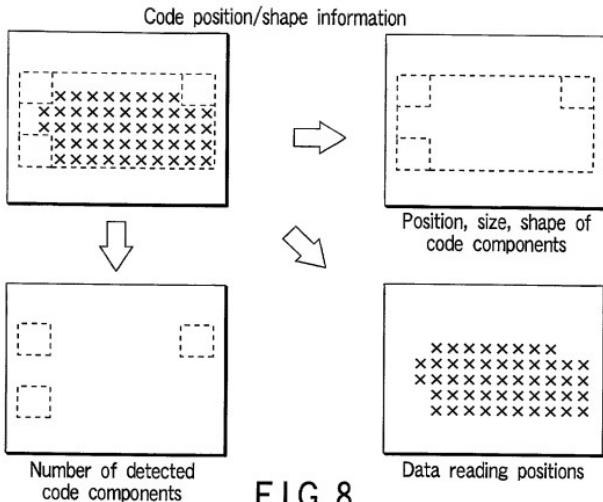


FIG. 7

10086422, 030103



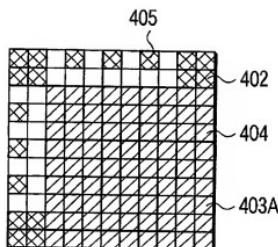


FIG. 11
PRIOR ART

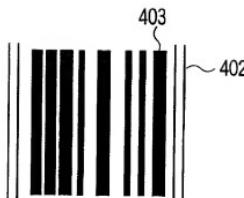


FIG. 12
PRIOR ART

FIG. 13
PRIOR ART

1	3	5	7	9
2	4	6	8	10

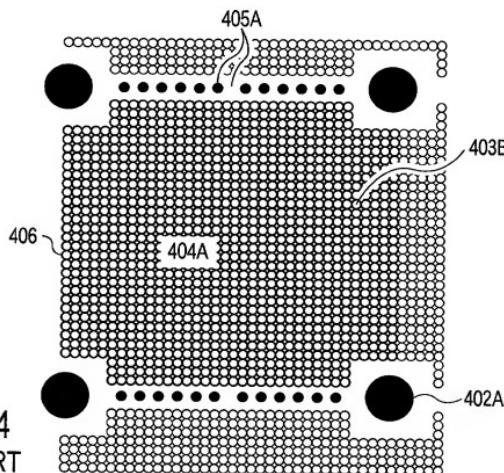
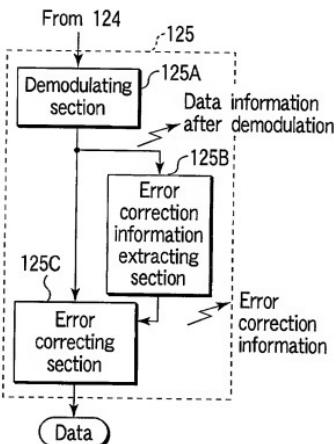
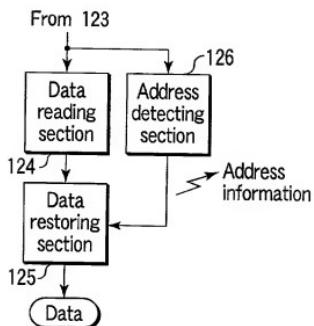
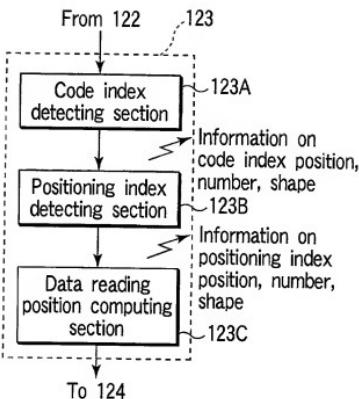
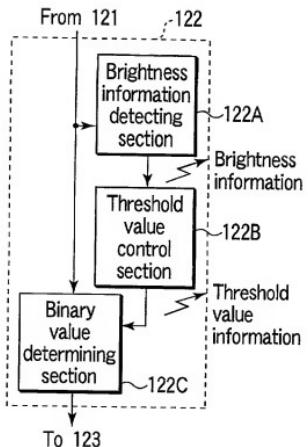
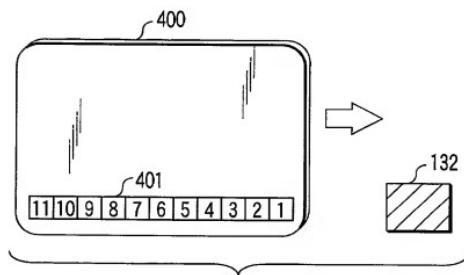
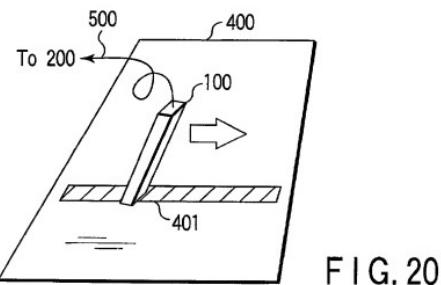
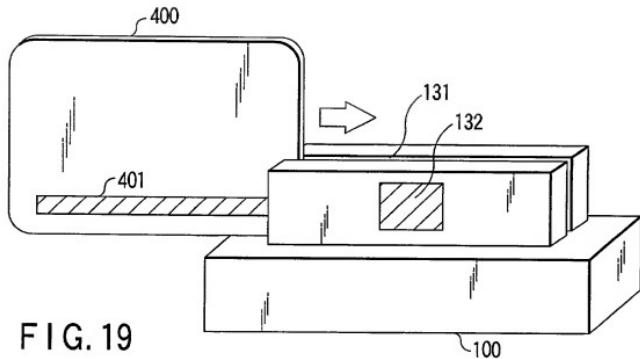


FIG. 14
PRIOR ART



10086422, 030103



8	7	6	5
---	---	---	---

Picked up image

FIG. 22

10	9	8	7
----	---	---	---

Picked up image

FIG. 23

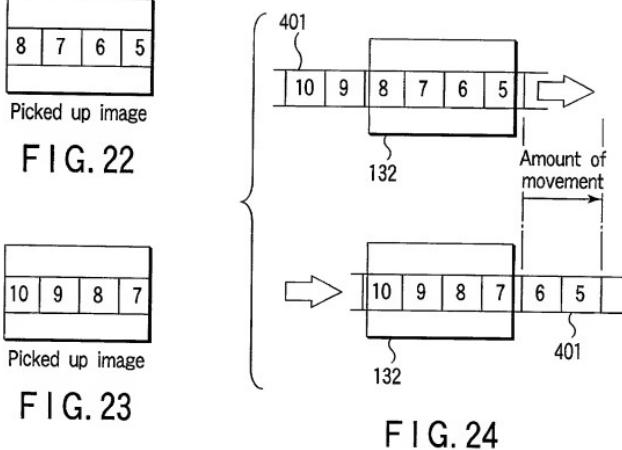


FIG. 24

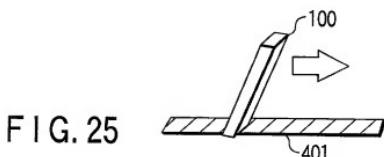


FIG. 25

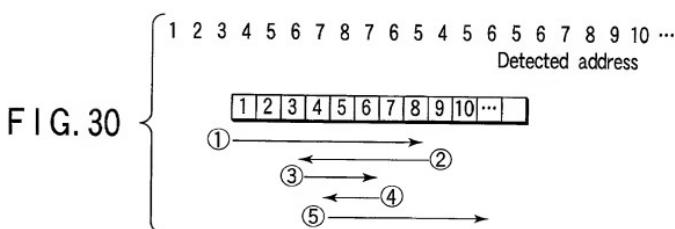


FIG. 30

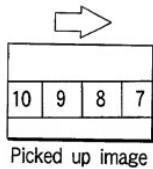
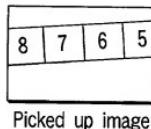


FIG. 26



Picked up image

FIG. 26

FIG. 27

卷之三

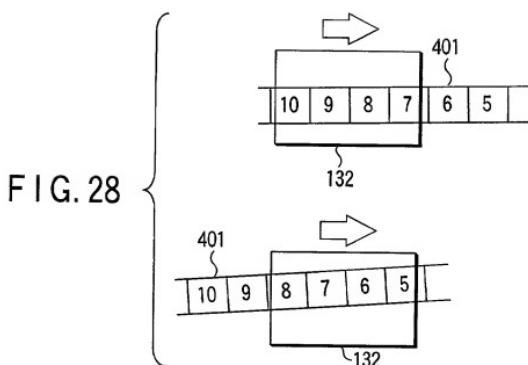


FIG. 28

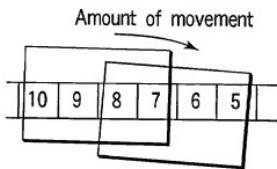


FIG. 29

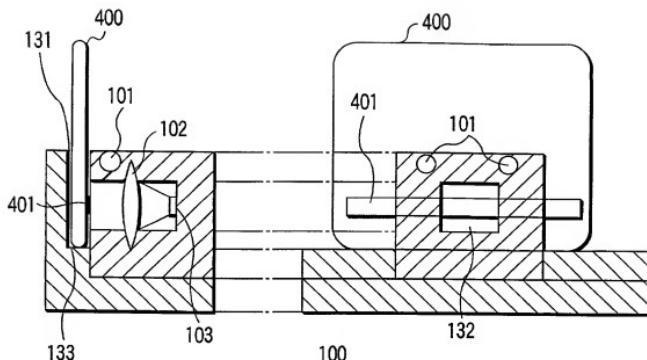
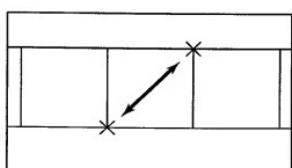
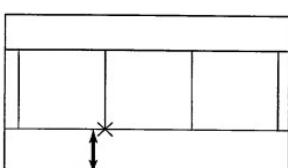


FIG. 31



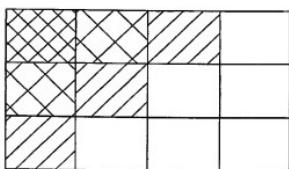
Parameter relating to
lens magnification

FIG. 32



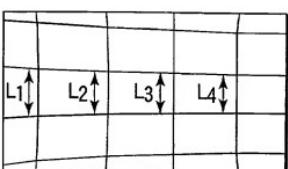
Parameter relating to
guide position

FIG. 33



Parameter relating to
lighting condition

FIG. 34



Parameter relating to
distortion

FIG. 35

Detected information	Acquired parameter	Parameter relating to code reading apparatus	Parameter relating to recording medium	Parameter relating to way of reading code	Parameter relating to code reading operation
Environment information	Reading environment (temperature; humidity; time; position; atmospheric pressure) Power supply rising time; supply voltage	○ ○	○ ○	○ ○	○ ○
Multi-value image information	Maximum brightness (suspension; tilt; lighting intensity; sensor sensitivity; reflectivity) Minimum brightness (suspension; tilt; lighting intensity; sensor sensitivity; reflectivity)	○ ○	○ ○	○ ○	○ ○
	Average brightness (suspension; tilt; lighting intensity; sensor sensitivity; reflectivity) Brightness distribution (suspension; tilt; lighting intensity; sensor sensitivity; reflectivity)	○ ○	○ ○	○ ○	○ ○
	Average brightness of predetermined region Ratio of maximum brightness/minimum brightness (density) Brightness of code components	○ ○	○ ○	○ ○	○ ○

FIG. 36A

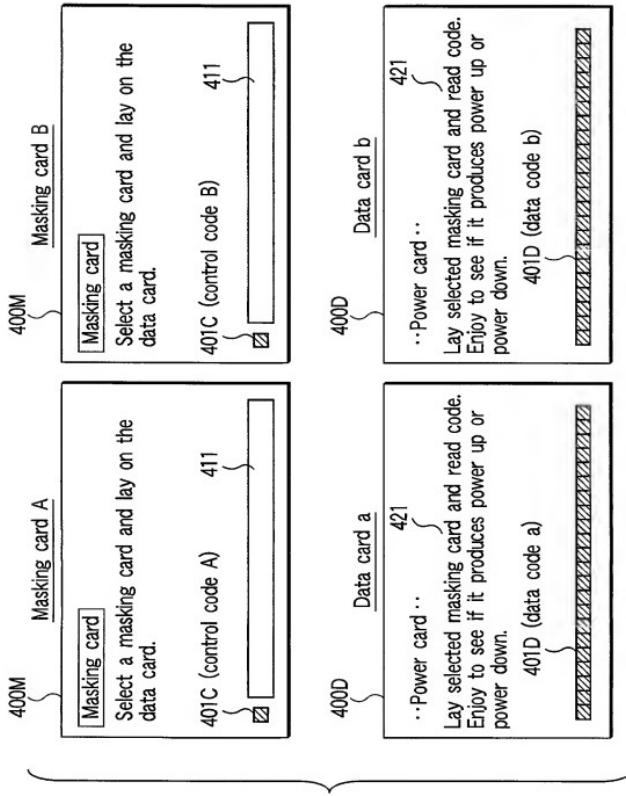
Threshold value information	Threshold value
Binarized image information	Number of black pixels Ratio of white pixels/black pixels
Information on positions, number, shape of code indexes (positioning indexes)	Code indexes detecting positions Number of detected code indexes Size of code indexes Shape of code indexes Center of gravity/center position of code indexes Intervals separating code indexes (size of code; size of block) Positional relationship of code indexes (shape of code; shape of block) Missing information of code indexes
Address information	Address Number of corrected address errors (missing address data) Positions of corrected address errors Address missing information

FIG. 36B

Code data information	Data reading positions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Number of black dots, number of white dots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Black/white ratio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Data length	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demodulated data information	Number of read blocks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Number of 1s; number of 0s	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1/0 ratio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Number of corrected errors (missing data)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Error correction information	Positions of corrected errors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	ID; producer; type of information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Recording time; amount of data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Moving speed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative movement information	Moving direction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Number of movements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Meandering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Time spent from command input to shooting of code at predetermined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

represents particularly effective parameter

FIG. 36C



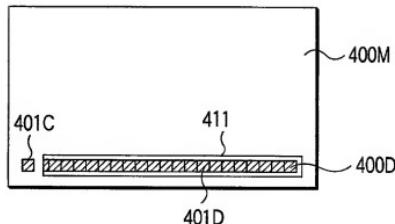


FIG. 38

Z	B	D	F	H	J
1,2	5,6	9,10	13,14	17,18	21,22
3,4	7,8	11,12	15,16	19,20	
A	C	E	G	I	

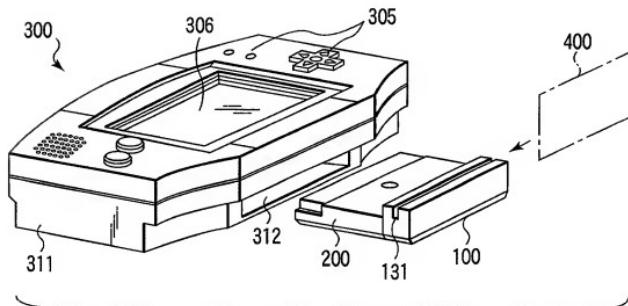


FIG. 40

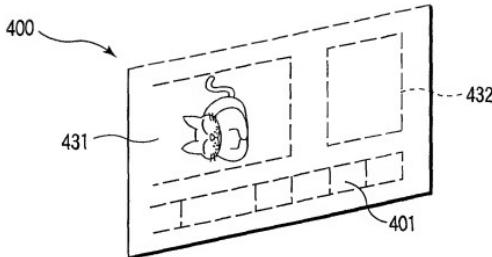


FIG. 41

Card ID	Attribute	Data section
---------	-----------	--------------

- {
- Information to be provided with randomness + plurality of pieces of information to be used for providing randomness
 - Information to be provided with randomness + program adapted to select a plurality of motions
 - Information to be provided with randomness + program adapted to handle a plurality of program parameters

FIG. 42

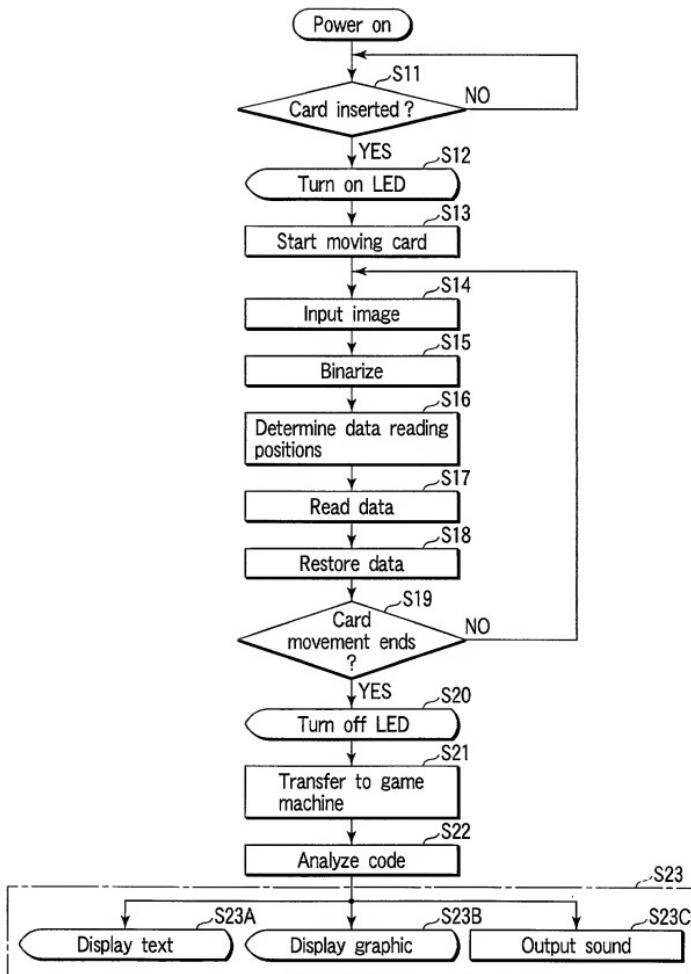
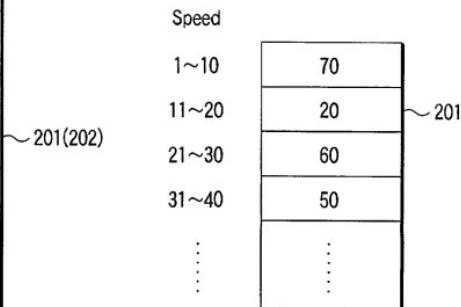


FIG. 43

Error rate [0]
Animation pattern [0]
Error rate [1]
Animation pattern [1]
⋮
⋮
Error rate [n]
Animation pattern [n]



10085422 - 030102

FIG. 44

FIG. 50

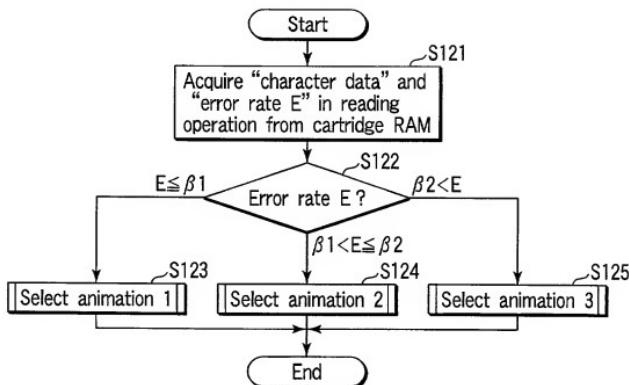


FIG. 46

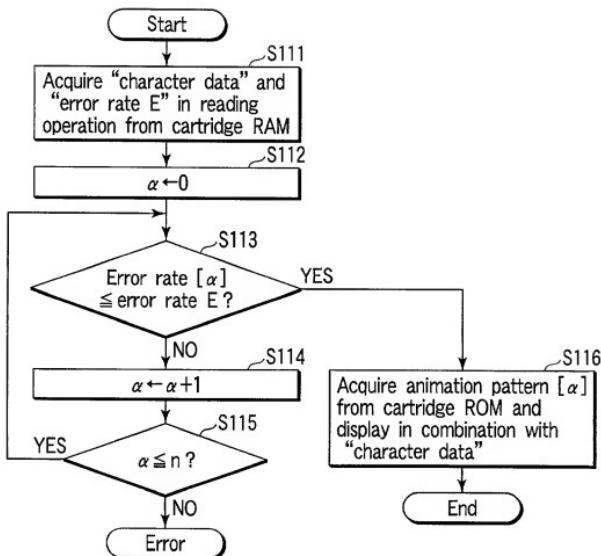


FIG. 45

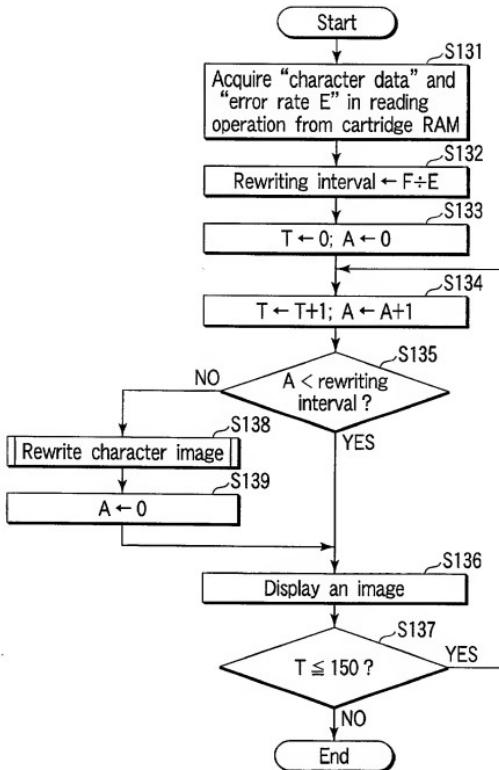


FIG. 47

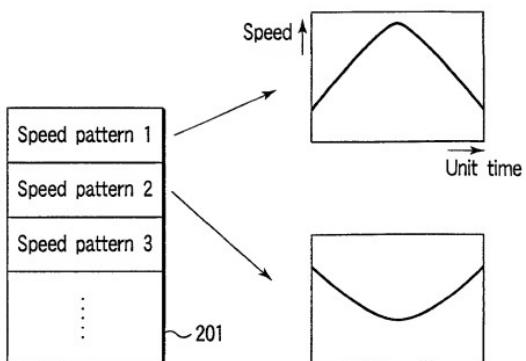


FIG. 48

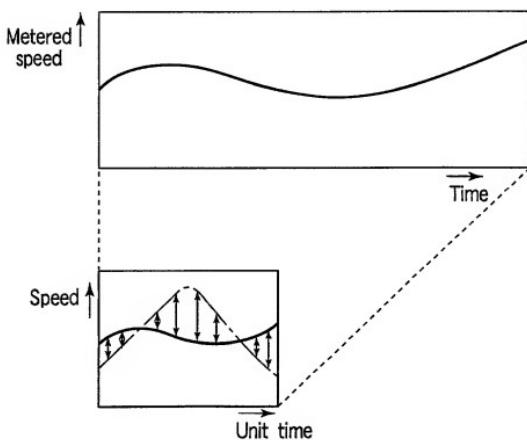


FIG. 49